

### **Remarks**

#### **Objections**

The Examiner objects to claim 5 stating the term “extrachromosomal vector” is redundant. The term “extrachromosomal” has been deleted in claim 5 as amended.

The Examiner objects to claim 23. Claim 23 has been canceled. The Examiner objects to claim 25 because of the recitation “(in terms of reading frame).” The recitation has been deleted from amended claim 25. The Examiner objects to claim 33 because of the recitation “according to any of the preceding claims.” The recitation has been amended to read “according to any one of claims 1, 2, 5-8, 10-15, 21, 24, 25, 29-32”.

The Examiner objects to claim 35 stating that for clarity a comma is needed between “low levels of” and “or no uracil.” The claim has been amended to include the comma.

#### **Rejections**

The Examiner has rejected the claims under 35 USC 112 second paragraph as being indefinite for the reasons given below.

The Examiner states that the variable combination of genes on the construct of claim 1, allows for alternate interpretations and thereby renders the claim indefinite. Claim 1 has been amended eliminating the potential for alternate interpretations of the claim.

The Examiner states the claims are indefinite for the use of gene nomenclature, where the nomenclature is not associated in the claim with an organism. The claims have been amended clarifying the association of the gene nomenclature to an organism.

The Examiner states that claim 14 is indefinite in the recitation of a “synthetic terminator.” Per the Examiner’s suggestion the claim has been amended, replacing the words “synthetic terminator” with the term “heterologous termination sequence.”

The Examiner states that Claim 15 is indefinite in the recitation of a “reductase . . . less sensitive to allosteric inhibition than the ribonucleotide reductase encoded by the unit comprising an unmodified *nrdA* gene.” Claim 15 has been amended to compare the modified reductase to the wild type reductase, as suggested.

The Examiner states claims 17 and 42 are indefinite in the recitation of “position 79;” claim 23 in its recitation of “the same vector” and claim 47 is incomplete for omitting steps. Claims 17, 23, 42 and 47 have been canceled.

The Examiner states claim 35-37 is indefinite in the recitation of “DNA sequence”. The term “sequence” or “sequences” has been replaced with “polypeptide” or “polypeptides” as suggested by the Examiner.

The Examiner states claims 1-48 are rejected under 35 USC 112 first paragraph as lacking written description of the claimed invention for genes encoding enzymes other than the genes associated with the constructs and strains disclosed. The Examiner also states it is lacking written description for the use of amino acid substitutions and modifications in genes other than those disclosed. The scope of the claims are similarly rejected as not being enabled for genes encoding enzymes other than the genes associated with the constructs and strains disclosed and not being enabled for the use of amino acid substitutions and modifications in genes other than those disclosed.

Applicants traverse the rejection in part and submit that the invention is properly described and enabled for modifications in the T4 *nrdA* gene other than the modification disclosed in the Examples. The scope of Applicants’ claims should not be limited to the particular example of modification given in the specification. Page 8 of the specification gives one skilled in the art sufficient guidance as to how other useful modifications could be determined and employed without undue experimentation. The pending claims have been amended to overcome the Examiner’s rejection and new claim 49 is presented. Applicants request the rejections under 35 USC 112 be withdrawn.

Rejections under 35 USC 102 and 35 USC 103

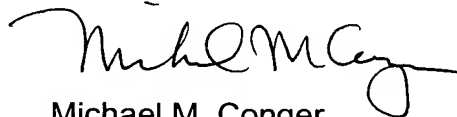
The Examiner rejects the claims 1, 3, 5-6, 11, 12, 32, 33, 45-46 under 35 USC 102(b) as being anticipated by Wang et al. Claim 13 is rejected under 35 USC 103 (a) as being unpatentable over Wang et al in view of Lim.

Neither reference individually or combined teaches or suggests the DNA construct with modified *nrdA* gene as claimed by the Applicants. Applicants request the rejections under 35 USC 102 and 35 USC 103 be withdrawn.

Applicants acknowledge the Examiner's provisional rejection for obviousness type double patenting relative to claims 12, 14-7, 29-38, 44-46, and 50-61 of copending application No. 09/345,492. The Applications are commonly owned and a terminal disclaimer is submitted herewith.

Applicants submit that the claims are in condition for allowance and request favorable reconsideration.

Respectfully submitted,



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